REMARKS

Claims 14 and 26-36 are pending and under consideration. In the Office Action of December 22, 2003 Claims 14 and 26-36 were rejected. With this Amendment, claims 14, 26-28 and 31-36 were amended to better point and distinctly claim the subject matter of the claims. Accordingly, claims 14 and 26-36 remain at issue in the above-identified application.

35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 14, 30, and 34-36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yamazaki et al.* (WO 99/40634 with U.S. Patent No. 6,632,538 used as the English translation) in view of JP 01320769. Applicants respectfully traverse and, for the following reasons, request reconsideration and withdrawal of this rejection.

The claims as presently amended are directed to methods comprising, inter alia, sealing a battery device within an exterior material followed by charging and discharging of the battery device. The discharging step is followed by a heating step under a pressured state, wherein the pressure is applied by means of a block of heat-resistant rubber. By using the block of heat-resistant rubber, it is possible to provide for uniform and stable pressuring and heating of the battery device (*See* the publication of the present application, US Publ. Pat. Appl. No. 2004/0146785, paragraph [0061]).

As demonstrated by battery sample 18, in which the laminated film was directly clenched by the heating block, without interposition of the rubber block, uniform pressuring and heating cannot be applied to the battery device, such that the adhesion between the gel electrolyte layer and the active material layer is insufficient, thus permitting lithium to be precipitated on the negative electrode (*See* Table 1, sample 18; paragraph [0095]).

The cited references neither disclose nor suggest the use of rubber blocks or the superior battery properties derived therefrom. In particular, the teachings of *Yamazaki et al.* cited by the Examiner (*See* page 5, first full paragraph of the Office Action of December 22, 2005) are not directed to a pressing member for the manufacture of battery devices. Rather, *Yamazaki et al.* discloses a polymer battery packet contained in an outer battery case of a hard material (*See* col. 69, lines 52-59; Figure 46).

The "pressing device" as intended by *Yamazaki et al.* is none other than a safety measure disposed in the above hard battery case in order to press the overlap contact part with reliability (*Id.*). Such a pressing device may be a plate spring, a coil spring or an elastic member (*See* col. 69, line 66 to col. 70, line 13). The function of the pressing device is to allow the overlap contact to be disconnected and interrupt the current when a gas is produced in the polymer battery packet and the pressure in the battery case of the polymer battery packet increases (*See* col. 69, lines 60-65). However, in no way is this "pressing device" part of an apparatus for manufacturing battery devices.

Similarly, the process disclosed by *Takeguchi et al.* has nothing to do with the art of the present invention. Rather, *Takeguchi et al.* discloses a method for manufacturing multilayer printed wiring boards with a cavity for mounting an electronic device (*See* Abstract). The cited reference addresses a problem allegedly encountered in such manufacturing when a copper clad laminate or printed wiring board with a hole is bonded to a printed wiring board without a hole by use of a prepreg with a hole as a bonding layer. With the prepreg mounted between these two boards in alignment with them, heat and pressure are applied to the assembly to melt the prepreg and bond the two boards together (*See* col. 1, lines 11-18).

The process has a problem in that the prepreg made of resin tends to melt and flow into the cavity for mounting a semiconductor element so as to cover the bonding pads formed on the lower board. Accordingly, the bonding pads can become covered with molten resin of a prepreg which has flowed into the cavity (*See* col. 1, lines 19-40; Figure 7). *Takeguchi et al.* tackles this problem by placing a rubber sheet in the cavity. Heat and pressure are tapplied to melt the prepreg and bind the printed wiring boards, and the rubber sheet is then removed (*See* col. 2, lines 29-46; Figure 1A).

The presence of the rubber sheet allegedly stops the molten resins from flowing into the cavity, making it possible to manufacture a printed wiring board with no flow of resin toward the cavity (Col. 3, lines 30-33). In view of the foregoing, it is readily apparent that the rubber sheet of *Takeguchi et al.* pertains to a different application and an altogether different art than the block of heat-resistant rubber of the claims. Accordingly, the former simply offer no disclosure or suggestion as regards the subject matter of the claims.

Hass et al. also applies to an art unrelated to that of the present application. Specifically, *Hass et al.* provides a method for fabricating electronic ceramic packages comprising multiple layer structures with stair-case shaped cavities therein so as to maximize product quality and minimize manufacturing costs (*See* col. 1, lines 16-26; col. 2, lines 19-22). The ceramic packages are produced by lamination, a process defined as applying pressure to a stack of relatively thin sheets of material to cause interlayer bonding (*See* col. 4, lines 33-35) and serve as circuit substrates for the mounting of semiconductor chips (*See* col. 5, lines 23-27).

Hass et al. teaches conducting the lamination in the presence of a resilient material that fills the stair-case shaped cavity while assuming the shape of the stair-case without deforming or

rounding the edges and/or corners of the stair-case (*See* col. 4, lines 9-17). The resilient material allows for, inter alia, decreasing the number of defects resulting from nonuniform application of pressure during lamination (*See* col. 2, lines 23-27) and preventing adhesive from flowing out of the stack of sheets onto bonding pads on the steps of the stair-case cavity (*See* col. 1, line 65 to col. 2, line 3).

Applicants submit that the filling of stair-case cavities in the manufacturing of multilayer ceramic packages for semiconductor applications is not analogous prior art with respect to the manufacturing of batteries enclosed in laminated films. In addition, the cited reference features no disclosure or suggestion whatsoever as to applicability of elastic materials to the pressing of batteries enclosed in a laminated film. Consequently, the teachings of *Hass et al.* do not provide any basis for a finding of obviousness with respect to the claimed subject matter.

In view of the foregoing, Applicants respectfully submit that the claimed methods are not obvious in view of the cited references, and the rejection should be removed.

Claims 14, 26-30, and 34-36 also were rejected under 35 U.S.C. 103(a) as being unpatentable over *Yamazaki et al.* and JP 01320769 as applied to claims 14, 30, and 34-36 above, and further in view of *Kinsman* (U.S. Patent No. 4,069,578) and either one of *Takeguchi et al.* (U.S. Patent No. 5,116,440) or *Hass et al.* (U.S. Patent No. 5,972,140). Applicants respectfully submit that, as the above rejection in view of *Yamazaki et al.* and JP 01320769 is improper, the present rejection is also improper and should be removed.

Claims 31 and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Yamazaki et al.* and JP 01320769 as applied to claims 14, 30, and 34-36 above, and further in

view of *Akashi* (U.S. Patent No. 5,658,686). Applicants respectfully submit that, as the above rejection in view of *Yamazaki et al.* and JP 01320769 is improper, the present rejection is also improper and should be removed.

Claims 31 and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Yamazaki et al.,* JP 01320769, *Kinsman* and either one of *Takeguchi et al.* or *Hass et al.* as applied to claims 14, 26-30, and 34-36 above, and further in view of *Akashi.* Applicants respectfully submit that, as the above rejection in view of *Yamazaki et al.* and JP 01320769 is improper, the present rejection is also improper and should be removed.

Claim 33 was rejected under 35 U.S.C. 103(a) as being unpatentable over *Yamazaki et al.* and JP 01320769 as applied to claims 14, 30, and 34-36 above, and further in view of JP 11140209. Applicants respectfully submit that, as the above rejection in view of *Yamazaki et al.* and JP 01320769 is improper, the present rejection is also improper and should be removed.

Claim 33 was rejected under 35 U.S.C. 103(a) as being unpatentable over *Yamazaki et al.*, JP 01320769, *Kinsman*, and either one of *Takeguchi et al.* or *Hass et al.* as applied to claims 14, 26-30, and 34-36 above, and further in view of JP 111402509. Applicants respectfully submit that, as the above rejection in view of *Yamazaki et al.* and JP 01320769 is improper, the present rejection is also improper and should be removed.

Claims 14, 26-32, 34, and 36 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Hatta et al.* (U.S. Patent No. 6,797,430) in view of JP 11140209. Applicants submit that the cited references neither disclose nor suggest the use of rubber blocks or the

superior battery properties derived therefrom. The rejection is therefore improper and its withdrawal is respectfully requested.

Claims 33 and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Hatta et al.* and JP 0132769 as applied to claims 14, 26-32, 34 and 36 above, and further in view of JP 11140209. Applicants respectfully submit that, as the above rejection in view of *Hatta et al.* and JP 01320769 is improper, the present rejection is also improper and should be removed.

Conclusion

In view of the foregoing, Applicants submit that the application is in condition for allowance. Notice to that effect is requested.

Respectfully submitted,

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